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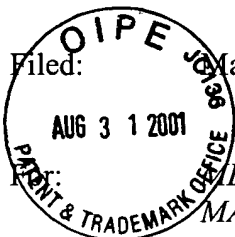
Applicants: Carl Arne Krister Borrebaeck and Roland Carlson

Serial No.: 09/811,075

Art Unit: Not Yet Assigned

Filed: March 16, 2001

Examiner: Not Yet Assigned



METHODS OF MAKING AND USING MICROARRAYS OF BIOLOGICAL MATERIALS

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicants submit an Information Disclosure Statement, including six (6) pages of Form PTO-1449 and a copy of each document cited therein.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-1868.

U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
5,856,090	01-05-1999	Epstein	435/6
5,955,281	09-21-1999	Brann	435/6
5,969,108	10-19-1999	McCafferty et al.	530/387.3

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08/13/01
LB
10/15/01

Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Country</u>
WO 95/35505 A1	12-28-1995	The Board of Trustees of the Leland Stanford Junior University	PCT
WO 98/37186 A1	08-27-1998	Actinova Limited	PCT
WO 99/24823 A1	05-20-1999	Protiveris, Inc.	PCT
WO 99/31267 A1	06-24-1999	Sepracor, Inc.	PCT
WO 99/36081 A1	07-22-1999	UAB Research Foundation	PCT
WO 99/39210 A1	08-07-1999	Samuel Miller	PCT
WO 99/40434 A1	08-12-1999	Invitrogen	PCT
WO 99/51773 A1	10-14-1999	Phylos, Inc.	PCT
WO 00/09464 A1	02-24-2000	Phylos, Inc.	PCT
WO 00/35473 A1	06-22-2000	Scios, Inc.	PCT
WO 00/49417 A1	08-24-2000	Arcaris, Inc.	PCT
WO 00/53812 A1	09-14-2000	President and Fellows of Harvard College	PCT

Publications

AHLUWALIA, et al., "A comparative study of protein immobilization techniques for optical immunosensors," *Biosens. Bioelectron.* 7(3):207-214 (1992).

AULAK, et al., "Post-transcriptional regulation of the arginine transporter Cat-1 by amino acid availability," *J Biol Chem* 274(43):30424-32 (1999).

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BORREBAECK, "Antibodies in diagnostics – from immunoassays to protein chips," *Immunol. Today* 21:379-382 (2000).

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JENSEN, et al., "Peptide sequencing of 2-DE gel-isolated proteins by nanoelectrospray tandem mass spectrometry," *Methods Mol Biol* 112:571-88 (1999).

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MARKS, et al., "By-passing immunization," *J Mol Biol* 222(3):581-97 (1991).

MARSHALL & HODGSON, "DNA chips: an array of possibilities," *Nat. Biotech.* 16:27-31 (1998).

MCCAFFERTY & JOHNSON, "Construction and screening of antibody display libraries," I in *Phage Display of Peptides and Proteins: a Laboratory Manual*. (Eds. Kay, BK., Winter, J., and McCafferty, J.) Academic Press, San Diego, CA (1996) pp. 79.

NEMOTO, et al., "In vitro virus: Bonding of mRNA bearing puromycin at the 3'-terminal end to the C-terminal end of its encoded protein on the ribosome in vitro," *FEBS Lett* 414(2):405-8 (1997).

O'FARRELL, "High resolution two-dimensional electrophoresis of proteins," *J.Biol.Chem.* 250:4007-4021 (1975).

PEASE, et al., "Light-generated oligonucleotide arrays for rapid DNA sequence analysis," *PNAS* 91(11):5022-5026 (1994).

PERROT, et al., "Two dimensional gel protein database of *Saccharomyces cerevisiae* (update 1995)," *Electrophoresis* 20(11):2280-98 (1999).

PORATH & FLODIN, "Gel filtration: a method for desalting and group separationm," *Nature* 193:1657-1659 (1959).

REYMOND, et al., "Standardized characterization of gene expression in human colorectal epithelium by two-dimensional electrophoresis," *Electrophoresis* 18(15):2842-8 (1997).

SANTI, et al., "Bacteriophage lambda display of complex cDNA libraries: a new approach to functional genomics," *J Mol Biol* 296(2):497-508 (2000).

SHEETS, et al., "Efficient construction of a large nonimmune phage antibody library: the production of high-affinity human single-chain antibodies to protein antigens," *Proc Natl Acad Sci USA* 26:6157-6162 (1998).

SHUSTA, et al., "Yeast polypeptide fusion surface display levels predict thermal stability and soluble secretion efficiency," *J Mol Biol* 292(5):949-56 (1999).

SMITH, "Filamentous fusion phage: Novel expression vectors that display cloned antigens on the virion surface," *Science* 228(4705):1315-7 (1985).

TOWBIN, "Immunoblotting in the clinical laboratory," *J Clin Chem Clin Biochem* 27(8):495-501 (1989).

VAUGHAN, et al., "Human antibodies with sub-nanomolar affinities isolated from a large non-immunized phage display library," *Nat Biotechnol* 14:309-314 (1996).

WINTER, "Bacteriophage display: peptide libraries and drug discovery," *Drug Dev. Res.* 33:71-89 (1994).

WODICKA, et al., "Genome-wide expression monitoring in *Saccharomyces cerevisiae*," *Nat Biotchnol* 15(13):1359-67 (1997).

U.S.S.N.: 09/811,075
Filed: March 16, 2001
INFORMATION DISCLOSURE STATEMENT

Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



Patrea L. Pabst
Reg. No. 31,284

Dated: August 29, 2001

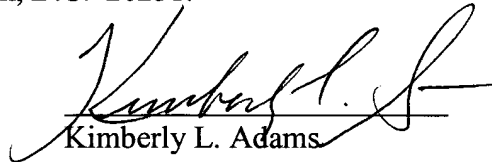
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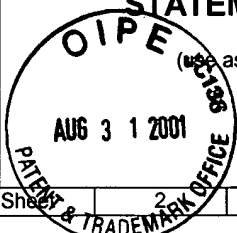
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)		Application Number	09/811,075
		Filing Date	March 16, 2001
		First Named Inventor	Carl Arne Krister Borrebaeck
		Group Art Unit	
		Examiner Name	
Sheet 2 of 6		Attorney Docket Number	BIOT 100

OTHER ART – NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		AHLUWALIA, et al., "A comparative study of protein immobilization techniques for optical immunosensors," <i>Biosens. Bioelectron.</i> 7(3):207-214 (1992).	
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		CLACKSON, et al., "Making antibody fragments using phage display libraries," <i>Nature</i> 352:624-628 (1991).	
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		DAVIES, et al., "Profiling of amyloid β peptide variants using SELDI ProteinChip arrays," <i>Biotechniques</i> 27(6):1258-61 (1999).	

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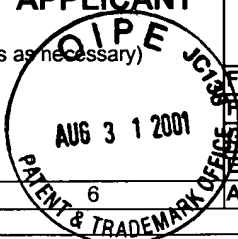
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		HE & TAUSSIG, "Antibody-ribosome-mRNA (ARM) complexes as efficient selection particles for in vitro display and evolution of antibody combining sites," <i>Nucleic Acids Res</i> 25(24):5132-4 (1997).	

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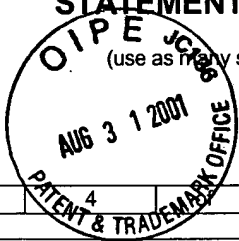
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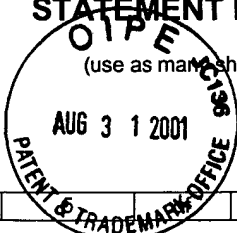
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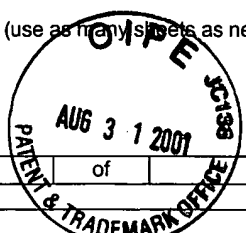
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Sheet 6 of 6	Attorney Docket Number	BIOT 100	



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		SHUSTA, et al., "Yeast polypeptide fusion surface display levels predict thermal stability and soluble secretion efficiency," <i>J Mol Biol</i> 292(5):949-56 (1999).	
		SMITH, "Filamentous fusion phage: Novel expression vectors that display cloned antigens on the virion surface," <i>Science</i> 228(4705):1315-7 (1985).	
		TOWBIN, "Immunoblotting in the clinical laboratory," <i>J Clin Chem Clin Biochem</i> 27(8):495-501 (1989).	
		VAUGHAN, et al., "Human antibodies with sub-nanomolar affinities isolated from a large non-immunized phage display library," <i>Nat Biotechnol</i> 14:309-314 (1996).	
		WINTER, "Bacteriophage display: peptide libraries and drug discovery," <i>Drug Dev. Res.</i> 33:71-89 (1994).	
		WODICKA, et al., "Genome-wide expression monitoring in <i>Saccharomyces cerevisiae</i> ," <i>Nat Biotechnol</i> 15(13):1359-67 (1997).	

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